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Study on the biology of *Trissolcus grandis Thomson* (Hym.: Scelionidae) under laboratory condition

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ABSTRACT

The results of laboratory studies on the biology of *Trissolcus grandis*, an important egg parasitoid of sunn pest indicated that this parasitoid completed its development in 10.9 days (egg 0.4 ± 0.005 day ; larvae 6.4 ± 0.29 days; pupa 4.1 ± 0.4 days). Newly emerged female parasitoid responded well to host eggs. The adults lived longest when provided with both honey and water, without food they survived less than 24h. Results showed that female parasitoid deposited eggs throughout the 24hrs. period, but peak oviposition occurred late in the photophase. The virgin females lived longer (52.75 ± 11.43 days) than mated ones (38.5 ± 13.76 days) and produced fewer progeny, 143.8 ± 18.72 compared with mated females (199.625 ± 51.43).

There was no significant diference in parasitism of host eggs of 24 to 72hrs. old, but eggs older than 72hrs. were significantly less parasitized than younger ones. Progeny production per female showed a similar correlation with host egg age. The mean sea ratio was significantly different between 24hrs. old eggs and older ones. Sunn pest ovipositional period did not influenced the rate of parasitism and sex ratio of the parasitoid.

Key words: *Trissolcus grandis*, Biology, Sunn pest egg parasitoid

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